INCREASING MARINE SECURITY IN THE SUNDA STRAIT TO REALIZE INDONESIAN ARCHIPELAGO SEA LINE 1 CONTROL

PENINGKATAN KEAMANAN LAUT DI SELAT SUNDA DALAM RANGKA MEWUJUDKAN PENGENDALIAN ALUR LAUT KEPULAUAN INDONESIA 1

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Abstract. Indonesia as an archipelago country has strategic value in the water sector. The Sunda Strait as one of the shipping lanes located on the Indonesian Archipelago Sea lane 1 shipping lane and as a gateway for international shipping ships so that the Sunda Strait is part of the main lines of international trade. Sunda Strait waters have a very important role for international shipping. The Sunda Strait is the busiest shipping lane so it is prone to violations. As a consequence, Indonesia must provide security and safety for shipping lines. If we meet these consequences well, they will contribute greatly to the economic progress of the Indonesian people. The limited security system in the Sunda Strait and the pattern of operations still running each agency has not been well coordinated so the security of the Sunda Strait is less than optimal. If the facilities in the Sunda Strait security system are enhanced and the maritime component is effectively utilized it is expected to be able to prevent violations of the law in the Sunda Strait. The method used in this research is descriptive qualitative method. This method is carried out by means of observation, while for data collection through interviews. The improvement of the security system and the integration of operating patterns under one command is expected to guarantee the security, safety of shipping and law enforcement in the Sunda Strait in order to control the Indonesian Archipelagic Sea Lane 1.

Keywords : Sistem Keamanan, Pola Operasi, keamanan Selat Sunda dan pengendalian Alur Laut Kepulauan Indonesia 1

1. Introduction.

Indonesia is the largest archipelagic country in the world that has a very

strategic position, because it is located between two oceans and two continents namely the Indian Ocean with the Pacific Ocean and the Asian Continent with the Australian Continent. So it is widely used as a traffic lane for ships crossing from the Pacific region to Australia in the South and to the South Asian region and the Middle East. This condition poses threats and problems for ships crossing Indonesian territory, especially in the Indonesian Archipelagic Sea Lane 1 (ALKI 1). Indonesia is an archipelago that has ratified UNCLOS 1982, so Indonesia has the obligation to determine the Indonesian Archipelagic Sea Lane (ALKI) and maintain the security of all ships that pass along the flow in the control of ALKI in order to maintain the sovereignty of ALKI 1.

The Sunda Strait part of ALKI 1 is the most populous strait. In the process of controlling the security of the Sunda Strait even though it has carried out ALKI 1 security operations carried out by authorized agencies such as The Indonesian Navy, The Indonesian National Police, The Indonesian Maritime Security Agency, The Indonesian Sea and Coast Guard, the Ministry of Marine Affairs and Fisheries , The Directorate General of Customs and Excise still has problems overlapping tasks and responsibilities. This condition greatly affects the security of the region which will impact on national security. The security referred to above, in the form of security from the threat of violence at sea, the threat of navigation hazards, the threat to the environment, marine resources as well as the threat of law violations and the threat of the danger of accidents at sea.

To realize security in the Sunda Strait it is necessary to improve the maritime security system. At present there are still problems including cooperation between related agencies only limited to informal coordination and implementation is still sectoral, facilities and infrastructure are very limited and there is no clear organization in regulating the implementation of security operations in the Sunda Strait. agencies and have not been well coordinated.

These problems can lead to conflicts during operations between law enforcement, because there are many overlapping authorities between these agencies. This situation will cause vulnerability in the Sunda Strait region and impact on national and international shipping security that passes through the Sunda Strait region.

2. Scope Review.

From the background of the above problems are of national strategic nature, so that maritime security in the Sunda Strait region can be carried out properly there needs to be "improved maritime security systems in the Sunda Strait area in order to control the Indonesian Archipelagic Sea Channel 1". With the improvement of the security system it is expected to realize security in the Sunda Strait in accordance with the mandate in the Law, so that it will increase the credibility of the Indonesian Nation in the international world and participate in carrying out world order.

3. Batasan Masalah.

This study discusses the improvement of the maritime security system in the Sunda Strait region which involves relevant agencies in an integrated and coordinated manner in one command of control in order to control operations.

4. Purpose

The purpose of this study is to provide input and contribute thoughts for leaders in determining further policies, specifically regarding the Improvement of the Maritime Security System in the Sunda Strait in order to control ALKI 1.

5. Manfaat Penelitian.

a. Provides an overview of the formulation of policies relating to the Improvement of the Maritime Security System in the Sunda Strait region
b. Formulate efforts that can be made to realize the unified vision, mission and unity of the maritime component in maintaining and overseeing maritime security in the Sunda Strait.
c. Prepare recommendations to provide acceleration in implementing efforts that can be done to strengthen maritime security in the Sunda Strait.

6. Metodologi Penelitian.

The discussion of this study uses descriptive qualitative methods by observation, while for data collection through interviews supported by literature study. discussion through a theoretical framework (Sugiyono, 2019). Then for discussion through several theoretical frameworks as follows:

Marine Control According to Rear Adm Henry E. eccles. Maritime strategy is the mobilization of all sea power to control the situation and the area in order to achieve sea control so as to create an impact of excellence on other parties. Dalam penguasaan laut pihak yang menguasai laut memiliki kebebasan penuh untuk bergerak di laut tanpa gangguan, sebaliknya lawan sama sekali tidak dapat menggunakan bagian laut tersebut. In controlling the sea, those who control the sea generally have the ability to move at sea with a high degree of freedom, otherwise the opponent can use the sea with high risk (Soewarso, 1985) based on the theory, the improvement of the Sunda Strait security system and integration of operating patterns under one supervision control is expected to create maritime control in the Sunda Strait.

Theory of Maritime Strategy. According to Alfred Thayer Mahan, in his book The Influence of Sea Power Upon History, that the mastery of the sea is to guarantee the use of the sea for its own interests and to completely close the opponents' opportunities for its use. By building a maritime security system in the Sunda Strait area, we can guarantee the use of the sea for our own benefit.

According to Sir Julian S. Corbett, in his book Some Principle of Maritime Strategy, explains that the Command of the Sea in the form of sea control with the choice of the Securing Command, Disputing Command and Exercising Command methods associated with this theory, the improvement of the Sunda Strait security system is an effort for sea control in the region.

7. Result and Discussion

Sunda Strait which has the narrowest point in the middle with a distance of approximately 14 NM, in the long northern part from west to east is approximately 16 NM, in the long south from west to east approximately 65 NM and from north to south the length is approximately 70 NM in the implementation of supervision and control in the Sunda Strait region in the context of controlling ALKI 1 in the field encountered problems in the implementation of securing the Sunda Strait region, among others:

A. Limited Security System

Facilities and infrastructure supporting the maritime security system in the Sunda Strait have not been able to optimally support the maritime security system in the region. For supervision facilities are still not integrated and the limited facilities and infrastructure Surveillance systems and reconnaissance with technology that has been left behind causes an area that is unable to be monitored so as to enable the occurrence of violations.

B. Pattern of Operation Not Integrated

Maritime security operations carried out by 6 agencies including:

The Indonesian Navy, The Indonesian National Police, The Indonesian Maritime Security Agency, The Indonesian Sea and Coast Guard, the Ministry of Marine Affairs and Fisheries , The Directorate General of Customs and Excise. Each maritime agency carries out patrols related to security at sea in a sectoral manner in accordance with the authority it has based on the Laws and Regulations. In the security activities that have not been well coordinated, each sector is still operating in accordance with the duties and responsibilities of each agency, not yet integrated in an integrated maritime security system.

C. Command and Control Center

There is no Command and Control Center that specifically has the authority and responsibility to carry out security supervision and control in the Sunda Strait. Below is the formulation of a solution to solve the problem is as follows:

1. Realizing the strength of the security system

Enhancing Maritime Security System through a good marine security system is very much needed to maintain security in the Sunda Strait region so that it contributes to the security and control of the Indonesian Archipelagic Sea Path 1. Improvement of supporting facilities and infrastructure in securing the Sunda Strait area are as follows:

a) Radar

It is not effective if the patrol fleet of the ship operating task force The Indonesian Navy, The Indonesian National Police, The Indonesian Maritime Security Agency, The Indonesian Sea and Coast Guard, the Ministry of Marine Affairs and Fisheries , The Directorate General of Customs and Excise if you have to watch for 24 hours a patrol at sea will require high operational costs.

To be more effective and efficient, the solution is to adopt Intregrated Surveillance Maritime System (IMSS) technology that has been installed 18 Coastal Surveillance Station (CSS), 11 ship-based radars, two regional surveillance centers, and two fleet surveillance centers in Jakarta and Surabaya. IMSS is a maritime surveillance system that is integrated between Coastal Surveillance Station (CSS) or other ground monitoring stations with other surveillance centers.

CSS is integrated with Indonesian Warship (KRI), Regional Command Center (RCC) and Fleet Command Center (FCC). The IMSS monitoring system is equipped with VHF Radio which functions as a communication tool with ships passing around onshore monitoring stations. Plus HF Radio which functions as a backup of communication data to the RCC when VSAT cannot be used and also as a communication tool with the RCC. IMSS is also equipped with a Day Camera and FLIR (Forward Looking Infra Red) which functions to photograph the identity of ships passing

around CSS. Other supporting facilities are Nobletec which functions as a monitor of the position of ships passing around CSS and as a means of communication with the RCC and FCC via text message application. At present the placement of IMSS starts from Sabang to Batam, Riau Islands, East Kalimantan and is considered very effective in securing the Malacca Strait area.

The radar placement of maritime surveillance systems, especially in Batam itself is effective in helping marine surveillance. The IMSS target is to support supervision of the Indonesian Archipelagic Sea Lane (ALKI) which is a strategic and densely populated area of ship traffic. The IMSS radar has an effective range of around 40 Nautical Mile or 74 Km (Adi D, 2015).

b) Satelit Surveillance Maritime

This maritime surveillance satellite can be used for marine control in waters outside the Sunda Strait so that ships passing through the Sunda Strait can be detected more quickly.

With the use of the Maritime Surveillance Satellite as a detection tool it is expected to be able to optimize the implementation of surveillance and control in the Sunda Strait region, the Maritime Surveillance Satellite has the following advantages:

- Has an observation period for identification of ships that sail further.
- Not affected by weather (clouds or rain).
- Can identify the density of traffic in the waters.
- More complete data information about the target (ship)
- Advances in technology that can be integrated with information technology and computers to enable their use in broader fields.
- The area of supervision and observation is very broad.Can observe across national borders without violation of sovereignty.

c) CCTV/Camera Long Range

With the CCTV installed along the coast of the Sunda Strait it is expected that monitoring will be better and more effective because the monitoring and control center can provide an overview of the situation throughout the Sunda Strait region. The CCTV placement is recommended at 12 points along the Sunda Strait beach, namely:

- The Sunda Strait Coast of Sumatra

CCTV is placed on Rimaubalak Island, Panjurit Island, Sangiang Island, Sebesi Island, Karangbuah Island and Balimbing.

- Sunda Strait Beach part of Java Island

CCTV is placed in Suralaya, Tempurung Island, Big Merak Island, Sirih Anyer Beach, Popole Island, Tanjung Lesung and Panaitan Island.

d) Sonar

Sonar is used for underwater monitoring to detect submarines and mines, detect depth and can be used for the safety of divers. The way Sonar works is by sending subsurface sound waves and then waiting for the echo waves to be transmitted to the operator through the loudspeaker or displayed on the monitor. The process of installing a seabed installation in the strait of the Indonesian Archipelago Sea Channel (ALKI), for example in the Sunda Strait, which is part of ALKI I. The seabed installation of the seabed is to detect the presence of other countries submarines that pass at the strategic crossing point. Navy battleships patrol several times detected foreign submarines passing under the sea at several ALKI points. The problem is, warships cannot patrol continuously

because they have to regularly return to base. Therefore, installing underwater sonar installations at ALKI points, especially at ALKI I. With this tool, monitoring of surface ships and submarines that pass can be carried out continuously for 24 hours without the need to send warships to the location. (David, 2017)

e) Ship

Increased ability of the sea element operationally because the perpetrators of crime have been operating boats with speeds above 50 Knots. This will complicate the pursuit, capture and investigation if the elements of the ship carrying out the operation do not adjust. (Midhio, 2017). Ships operating in monitoring the coast of the Sunda Strait can be used with ships up to 30 meters in length and equipped with supporting equipment considering that the southern part of the Sunda Strait goes directly to the Indian Ocean which has large waves. By using ships with a length of more than 30 meters, it is expected to carry out action against any acts of violation or crime at least 12 miles from the coast.

f) Helicopter standby

The existence of a helicopter pad prepared in support of security will increase preparedness in overcoming and overcoming problems that occur in the Sunda Strait. so that security in the Sunda Strait can be guaranteed and contributes to the control of the Indonesian Archipelago Sea Channel 1. The helicopter standby operation on the ground must be in a ready condition if there is a report from the surveillance post, coast radar and an underwater sensor that detects suspicious contact, so that an immediate deterrence or deterrence is carried out, whether using a helicopter or a ship that is on standby at the base. strongly supports the creation of security guarantees in the Sunda Strait region.

g) Central Office of Supervision and Control

It is necessary to construct a building that is used for monitoring and control center activities in overseeing the security of the Sunda Strait. functions as a monitoring control center for ships passing through the Sunda Strait sea lane, the building is equipped with a monitoring tower which will be the center of the control of all maritime surveillance system facilities or the Intregrated Surveillance Maritime System (IMSS) of the building is designed with earthquake resistant forces considering the strait area Sundanese prone to earthquakes and tsunamis because it is close to the still active Krakatau volcano.

2. Integrated operating patterns in one supervision and control

Management of geostrategic aspects in the Malacca Strait is a problem that cannot be done sectorally by just one institution, therefore it is necessary to have an integrated involvement of all operational agencies at sea such as 6 institutions that have a marine patrol task force and 7 law enforcement agencies others do not have a marine patrol task force. Law enforcement agencies that have a patrol task force at sea are The Indonesian Navy, The Indonesian National Police, The Indonesian Maritime Security Agency, The Indonesian Sea and Coast Guard, the Ministry of Marine Affairs and Fisheries , The Directorate General of Customs and Excise. While law enforcement agencies that do not have a patrol task force at sea are: the Ministry of Tourism, the Ministry of Health, the Ministry of the Environment,

the Ministry of Forestry, the Ministry of Energy and Mineral Resources, the National Narcotics Agency, and the Regional Government.

For the security of the Sunda Strait it is necessary to carry out an integrated operation under one Monitoring and Control Center as an information and control center for the operating elements. The skills and abilities of the Supervisory and Control Center personnel must be able to carry out 5 (five) step procedures in the Supervision and Control Center namely; (1) Collecting data from various sources including TV media, and so on; (2) Displaying: (3) Corelating Data; (4) Analyzing and (5) Decision making, requires special expertise for the Supervisory and Control Center personnel so that the report that must be submitted is never late.

The elements used come from agencies such as the Indonesian Navy, National Police, Basarnas and the Ministry of Transportation or other agencies that have authority at sea, which are BKO-assigned to the Supervision and Control Center. For the time of BKO in accordance with the provisions specified or needs by the Supervision and Control Center because the implementation of operations planned by the organization so that the implementation will be in accordance with the plans that have been made.

From the operation of the Sunda Strait region which is carried out comprehensively, it can save natural wealth at sea and also to reduce the potential loss of the state indirectly due to illegal actions carried out by perpetrators of crimes at sea, especially in the Sunda Strait region.

To be able to realize security in the Sunda Strait region requires good cooperation between the Supervision and Control Center with other agencies such as police stations, TNI AL posts and communities along the Sunda Strait so that they can get information quickly about the situation in the Sunda Strait area . The operation of supervision and control of the Sunda Strait area is carried out throughout the year, which is controlled from the Monitoring and Control Center in the area of the peacock port or it can also be designated as the Bakauheni port area, because the facilities and infrastructure in the area near the port are quite complete.

To carry out security operations the Sunda Strait requires an air element (helicopter) to be alerted at the Helipad owned by the Monitoring and Control Center at the port. Heli is alerted to carry out actions that require rapid handling. Helicopters can monitor the situation of the Sunda Strait region and the four marine elements which are divided into four operating sectors with the presence of coastal radar, CCTV and sonar that have been installed along the Sunda Strait and integrated with the Central Monitoring and Controlling the use of elements in operation is alert at the base of the operation, if there is a new event the sea element is moved which is preceded by the air element as an initial detection of the event position. For routine operation patterns, it involves one agency in one operating period or involves several agencies in one operation period, for example in the operation period of one quarter, one marine element from the Navy and one sea element from the National Police and one helicopter from Basarnas. The operation was carried out with one standby element at the base and one patrol element along the Sunda Strait

area. Arrangement of elements that carry out patrol carried out alternately with a pattern of four days sailing and three days back. The patrol element does not have to sail continuously, but can monitor by means of anchor anchors in positions considered prone to violations. With the presence of these elements will provide a deterrent effect.

Operations carried out in the Sunda Strait area will be very effective and efficient by using integrated coastal radar, CCTV and sonar facilities to send contact information to the monitoring and control center, then the monitoring and control center will inform the marine and ship elements that are on standby operation at the base or are carrying out surveillance operations in the Sunda Strait area to carry out prevention and deal with problems that occur. Control of the maritime security system, then all operations in the Sunda Strait region will be centralized and controlled. So that supervision of the Sunda Strait area will be better and more effective, because of the Supervision and Control Center can provide an overview of the situation of the entire Sunda Strait area from the facilities and infrastructure that have been installed such as coastal radar, CCTV and sonar as well as elements that carry out patrols.

3) Establishment of the Supervision and control Center organization

The importance of equality of perception in carrying out tasks greatly influences the success in achieving the objectives of the security organization in the Sunda Strait. To improve security in the Sunda Strait area, a change is needed. The change is expected to increase cooperation between agencies well and the ability to work in a team so that the security of the Sunda Strait can be realized, this can eliminate the sectoral ego which has been a problem. As the person in charge of the operational implementation of the maritime security system, the government can appoint one of the agencies in accordance with the Presidential Decree. It is clear that Bakamla has a duty as the Indonesian Coast Guard.

As the Indonesian Coast Guard, Based on Law No. 32 of 2014 concerning Maritime Affairs, the Indonesian Maritime Security Agency (Bakamla RI) has the main task of conducting security and safety patrols in Indonesian waters and Indonesian jurisdictions. and Presidential Regulation 178 of 2014 concerning the Maritime Security Agency which functions to synergize and monitor the implementation of water patrols by related agencies. Bakamla with that authority can formulate national policies in the field of security and safety, implement security and safety implementation systems, carry out safeguards, supervision, prevention and legal action, synergize and monitor the implementation of water patrols including in the Sunda Strait (Editor, 2018). On that basis Bakamla can be designated as the person in charge of the implementation of supervision and control operations in the Sunda Strait region, while in manning facilities and infrastructure can use personnel from existing agencies not only as a coordinator.

8. Conclusions and suggestions

Based on the description and description above about improving the security system of the sea in the Sunda Strait region in the context of controlling

the Indonesian Archipelagic Sea Lane 1 can be concluded as follows:

a. Facilities and infrastructure are very limited, so it is necessary to increase the ability of marine elements in this case ships and improvement of facilities and infrastructure such as facilities for monitoring and controlling center, Radar beach, Sonar and CCTV integrated with the Center for Supervision and Control in the region

b. Increasing integrated security operations in a single maritime security system through the Enhancement of the Maritime Security System by adopting the radar technology of the maritime surveillance system or the Intregrated Surveillance Maritime System (IMSS).

c. The Supervision and Control Center which has duties and responsibilities in operating the maritime security system, the government establishes an existing agency namely Bakamla

d. From the conclusion of the improvement of the maritime security system in the Sunda Strait area above, it is suggested as follows: It is necessary to ratify the law which forms the basis of each agency into one Act as a guideline for all stakeholders of law enforcement agencies at sea to prevent overlapping. authority in the implementation of maritime security system operations because the implementation of the duties and functions of each implementor is currently based on the rules of each agency.

9. Reference

Adi D. (2015). IMSS, *Radar Pengawas Garis Pantai Selat Malaka* Retrieved from https://www.indomiliter.com/imss-radar-pengawas-garis-pantai-selat-malaka/. Diakses pada tanggal 18 Oktober 2019

Amelia, M. (2017). *Ini Penampakan Kapal Wanderlust Pengangkut 1 Ton Sabu*. Retrieved from https://news.detik.com/berita/d-3562168/ini-penampakan-kapal-wanderlust-pengangkut-1-ton-sabu, diakses pada 17 Juni 2019.

Buntoro, K. (2014). *Alur Laut Kepulauan Indonesia, prospek dan Kendala.* Jakarta: PT RajaGrafindo Persada

Haryono. (2016). *Zat Kimia Dibawa kapal Bocor, Belasan ABK Keracunan*. Retrieved from http://poskotanews.com/2016/12/13/zat-kimia-dibawa-kapal-bocor-belasan-abk-keracunan/ diakses pada 18 Juni 2019.

Midhio W, (2017). Implementasi Kebijakan *Western Fleet Quick Response* Dalam Menanggulangi Ancaman *Trans National Crime* Di Selat Malaka I. jurnal Universitas Pertahanan

Permenhan. (2015). Peraturan Menteri Pertahanan RI Nomor 23 Tahun 2015 tentang Buku Putih Pertahanan Indonesia, Jakarta.

Perpres. (2017). Peraturan Presiden RI Nomor 16 Tahun 2017 tentang Kebijakan Kelautan Indonesia.

Redaksi, (2018). *Bakamla Libatkan Unsur Operasi Instansi Penegak*

Hukum di Laut Retrieved from https://www.beritaekspres.com/2018/05/02/bakamla-libatkan-unsur-operasi-instansi-penegak-hukum-di-laut/

Sugiyono. (2019). *Metode Penelitian Kualitatif Untuk Penelitian Yang Bersifat Eksploratif, Enterpretif, Interaktif dan Konstruktif* . Bandung: Alfabeta.

Suhirwan, Prakoso, L. Y., Sianturi, D., Adriyanto, A., & Damayanti, R. (2019). *Sea Defense Strategy Implementation against Asymmetric Warfare Threats for Securing International Shipping Lanes in the Sunda Strait.* IIDS 2019

Soewarso (1985) *Kumpulan Karangan Tentang Evolusi Pemikiran Masalah Keangkatan Lautan, Jakarta Seskoal*

Tahar, A. M., & Widya K. (2012). *Pembagian Kewenangan Dalam Penegakan Hukum Terhadap Pelanggaran Peraturan Perundang-Undangan Di Perairan Indonesia*. Retrieved from https://jurnal.fh.unila.ac.id/index.php/fiat/article/view/342.

UNCLOS. (1982). Indonesia Meratifikasi dengan Undang Undang Nomor 17 Tahun 1985 tentang Pengesahan UNCLOS dan secara Internasional 16 November 1994.

UU. (2002). Undang Undang Republik Indonesia Nomor 3 Tahun 2002 tentang Pertahanan Negara.

UU. (2004). Undang Undang Nomor 34 tahun 2004 tentang Tentara Nasional Indonesia.

Wulansari EM (2014) *Penegakan Hukum Di Laut Dengan Sistem Single Agency Multy Tasks,* jurnal, RechtsVinding Online

Yuri, E., Gunawan, D., & Barnas, R. (2018). *Strategi Pangkalan TNI AL Banten Dalam Mendukung Pengamanan ALKI I*. Retrieved from http://jurnalprodi.idu.ac.id/index.php/SPS/article/view/288.

Daud Ameidyo (2017). *Awasi Kapal Selam Asing, Pemerintah Pasang Instalasi Sonar Bawah Laut.* Retrieved from https://katadata.co.id/berita/2017/07/31/awasi-kapal-selam-asing-pemerintah-pasang-instalasi-sonar-bawah-laut

Undang-Undang Nomor 32 Tahun 2014 tentang Kelautan

Peraturan Presiden Nomor 178 Tahun 2014 tentang BAKAMLA